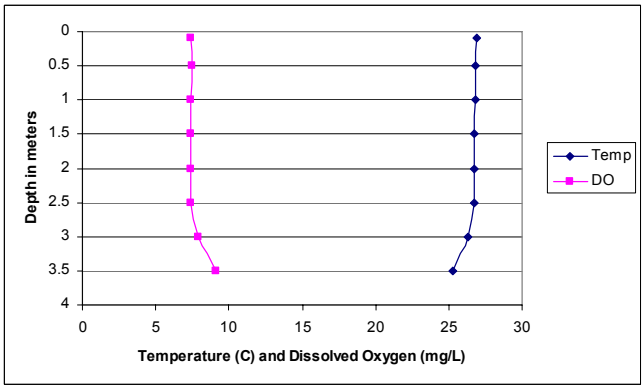
VOLUNTEER LAKE ASSESSMENT PROGRAM INDIVIDUAL LAKE REPORTS
DUCK POND, FREEDOM, NH
2012 DATA SUMMARY

OBSERVATIONS AND RECOMMENDATIONS (*Refer to Table 1 and Historical Deep Spot Data Graphic)*

- **CHLOROPHYLL-A:** Chlorophyll levels were much lower in 2012 than previous years.
- **CONDUCTIVITY/CHLORIDE:** Conductivity levels were slightly higher than the NH lake median value, however likely due to natural causes.
- **TOTAL PHOSPHORUS:** Deep spot phosphorus levels were much lower in 2012 than previous years.
- **TRANSPARENCY:** The Secchi disk was visible on the pond bottom in 2012.
- **TURBIDITY:** Deep spot turbidity levels were very low.
- **PH:** Deep spot pH levels have historically dipped below desirable levels.
- **RECOMMENDED ACTIONS:** Increase monitoring frequency to once per month in the summer (June, July and August) to better assess water quality trends. Otherwise, water quality looks great and we hope to see this continue!

Dissolved Oxygen & Temperature Profile



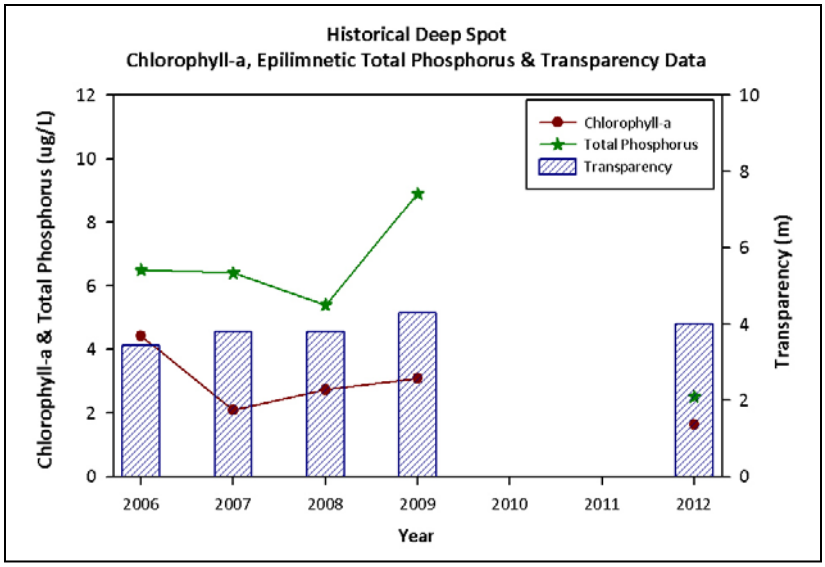
Station Name	Table 1. 2012 Average Water Quality Data for DUCK POND						
	Alk.	Chlor-a	Cond.	Total P	Trans.	Turb.	pH
	mg/l	ug/l	uS/cm	ug/l	m	ntu	
					NVS		
Deep Epilimnion	3.9	1.63	57.9	3	4.00	0.48	6.51
Deep Hypolimnion			57.4	5		0.54	6.75

NH Median Values: Median values for specific parameters generated from historic lake monitoring data.
Alkalinity: 4.9 mg/L
Chlorophyll-a: 4.58 mg/m^3
Conductivity: 40.0 uS/cm
Chloride: 4 mg/L
Total Phosphorus: 12 ug/L
Transparency: 3.2 m
pH: 6.6

NH Water Quality Standards: Numeric criteria for specific parameters. Results exceeding criteria are considered a water quality violation.
Chloride: < 230 mg/L (chronic)
E. coli: > 88 cts/100 mL – public beach
E. coli: > 406 cts/100 mL – surface waters
Turbidity: > 10 NTU above natural level
pH: 6.5-8.0 (unless naturally occurring)

HISTORICAL WATER QUALITY TREND ANALYSIS

Parameter	Trend	Explanation
Chlorophyll-a	N/A	More data needed to establish trend.
Transparency	N/A	More data needed to establish trend.
Phosphorus (epilimnion)	N/A	More data needed to establish trend.



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